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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/058,431	01/28/2002	Mee Sun Kim	429/1	4289
24101	7590	06/07/2006	EXAMINER	
BRUCE E. LILLING LILLING & LILLING P.C. P.O. BOX 560 GOLDEN BRIDGE, NY 10526			JUNG, MIN	
			ART UNIT	PAPER NUMBER
			2616	

DATE MAILED: 06/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/058,431

Applicant(s)

KIM, MEE SUN

Examiner

Min Jung

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 28 January 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Specification*

1. The abstract of the disclosure is objected to because Abstract should be in a one-paragraph format. Correction is required. See MPEP § 608.01(b).

### *Claim Rejections - 35 USC § 112*

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-13 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, preamble, it is not clear whether the word “respectively” is meant to imply that the MAC device and the PHY device each has a SMII. It is also not clear if the apparatus has the SMII. Further, at lines 6-8, it is not clear what is meant by “the first device to be resynchronized a predetermined number of times in a unit of a segment”; Does it mean that the synchronization process is iterated a number of times, or something else?

In claims 2-4, it is not clear what exactly is meant by “amongst devices.....”; isn’t the data transmission between the MAC device and the PHY device?

In claims 3 and 4, line 6, it is not clear how the phrase “with delayed for” fits in with the rest of the sentence.

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In claim 5, preamble, it is not clear if the apparatus has the SMII, PHY device has the SMII, or the MAC device and the PHY device each has an SMII. At lines 6, 9, and 12, it is not clear what is meant by "to be resynchronized a predetermined number of times"; Does it mean that the synchronization process is iterated a number of times, or something else?

In claims 6-11, it is not clear what exactly is meant by "amongst devices....."; isn't the data transmission between the MAC device and the PHY device?

In claim 12, preamble, it is not clear whether the word "respectively" is meant to imply that the MAC device and the PHY device each has a SMII. Further, at lines 6-8, it is not clear what is meant by "the first device to be resynchronized a predetermined number of times in a unit of a segment"; Does it mean that the synchronization process is iterated a number of times, or something else? At lines 9-10, it is not clear how the phrase "with delayed for a predetermined number of clocks" fits in with the rest of the sentence.

In claim13, it is not clear what exactly is meant by "amongst devices....."; isn't the data transmission between the MAC device and the PHY device?

In claim 13, lines 3-4, it is not clear if the transmission data includes transmitting data, receiving data, and synchronization signals, and if it does, then, what does it really mean by calling it "transmission data"?

***Claim Rejections - 35 USC § 102***

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4. The following is a quotation of the appropriate paragraphs of 35

U.S.C. 102 that form the basis for the rejections under this section made in this

Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

5. Claims 1-2, and 12 are rejected under 35 U.S.C. 102(e) as being anticipated by Smith et al., 6,813,651 (Smith).

Smith discloses an interface device for Ethernet transceiver and 1394 controller.

Specifically regarding the present claims 1 and 12, Smith teaches an apparatus for arbitrating data transmission between a MAC device and a physical layer (PHY) device having a serial media independent interface. See Figs. 3 and 4. The apparatus (interface device 102, Fig. 5) comprises at least one buffering means (FIFO buffers, col. 6, lines 36-38) for buffering transmission data input from the first device to be resynchronized a predetermined number of times in a

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unit of a segment and outputting the resynchronized transmission data to the second device (col. 6, lines 34-43, col. 6, line 65 – col. 7, line 18). The number of times may be the number of clock cycle.

Regarding claim 2, Smith teaches clock phase selecting means by teaching the phase relationship as shown in Fig. 15 and described in col. 7, lines 10-17.

### ***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Smith.

Smith fails to specifically teach that the number of times for resynchronizing process is set one to ten. However, Smith teaches the synchronization phase relationship as shown in Figs. 15 and 16, and clock generation and timing relating to phase. It would have been obvious for one of ordinary skill in the art at the time of the invention to modify Smith to iterate the synchronization process any number of times depending on factors such as accuracy, speed, and/or desired outcome in order to create a flexible system.

***Allowable Subject Matter***

8. Claims 5-11 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action.
9. Claims 3 and 4 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.
10. The following is a statement of reasons for the indication of allowable subject matter: Prior art fail to teach i) an apparatus for arbitrating data transmission between a MAC device and a PHY device as recited in the present claims including a switching means for switching output path of the buffering means; and ii) an apparatus for arbitrating data transmission between a MAC device and a PHY device as recited in the present claims including a third buffer for buffering synchronization signals, input from the MAC device every segment, to be resynchronized a predetermined number of times.

***Conclusion***

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The Aronson et al. PG Pub., the Fischer et al. patent, the Feuerstraeter et al. patent, the Loh et al. patent, the Lu et al. Patent, are cited for further references.
12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Min Jung whose telephone number is 571-


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272-3127. The examiner can normally be reached on Monday through Friday 9:00 - 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wellington Chin can be reached on 571-272-3134. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MJ  
June 1, 2006

  
Min Jung  
Primary Examiner